

MODIFIED POLYPEPTIDES STABILIZED IN A DESIRED CONFORMATION AND METHODS FOR PRODUCING SAME

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Abstract of the Disclosure

The present invention provides a method for stabilizing a protein in a desired conformation by introducing at least one disulfide bond into the polypeptide.

Computational design is used to identify positions where cysteine residues can be

10 introduced to form a disulfide bond in only one protein conformation, and therefore lock the protein in a given conformation. Accordingly, antibody and small molecule therapeutics are selected that are specific for the desired protein conformation.

The invention also provides modified integrin I-domain polypeptides that are stabilized in a desired conformation. The invention further provides screening assays

15 and therapeutic methods utilizing the modified integrin I-domains of the invention.

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